

ABSTRACT

The present invention relates to the field of semiconductor integrated circuits and, in particular, to capacitor arrays formed over the bit line of an integrated circuit substrate. The present invention provides a method for forming stacked capacitors, in which a plurality of patterned capacitor outlines, or walls, are formed over the bit line of a semiconductor device. In one aspect of the invention, spacers are formed on the patterned capacitor outlines and become part of the cell poly after being covered with cell nitride. In another aspect, the spacers are formed of a material capable of being etched back, such as titanium nitride. In another aspect, a metal layer is patterned and annealed to a polysilicon layer to form a mask for a capacitor array, and subsequently etched to form the array.